

越智春美\*: 日本産ハリガネゴケ科藓類の研究 II. ワタゴケ  
とホソウリゴケとの属間雑種孢子植物について

Harumi OCHI\*: Notes on the mosses of Bryaceae in Japan, II.  
Intergeneric hybrids sporogone (?) between *Bryum argenteum*  
var. *lanatum* (Palis) Bry. eur. and *Brachymenium exile*.

In the summer of 1952, the author had a excursion to Kyushu to collect bryophyte specimens, and collected a packet of *Brachymenium exile* mixed with *Bryum argenteum* var. *lanatum* and *Anomobryum nitidum*. Recently, he found a fact that several individuals of *B. argenteum* var. *lanatum* in the packet are bearing unusual sporogones on them.

The sporogones are as follows, and are shown in Fig. 1.:

Seta ca. 1,6-2 cm longa et 0,1-0,13 mm crassa, fusca vel nigrescenti-fusca, rigida, capsula erecta vel suberecta, oblongo-ovata, fusca vel subnigra, microstoma, ca. 2,5-2,7 mm longa et 0,8-0,9 mm crassa, collo brevi; peristomium duplex, ca. 0.4 mm altus, exostomii dentes basi fusciscenti-lutei, ca. 0,06 mm lati, apice hyalini, densissime et minutissime papilloso, marginibus irregularibus, endostomii hyalini, minutissime papilloso, processus et cillisque inaequale progressus; operculo conico, apice obtuso. Spores globosi, lutescenti-viridi, levi, 10-12  $\mu$  crassi.

Hab.: on soil near or covering the concrete walled small ditch by

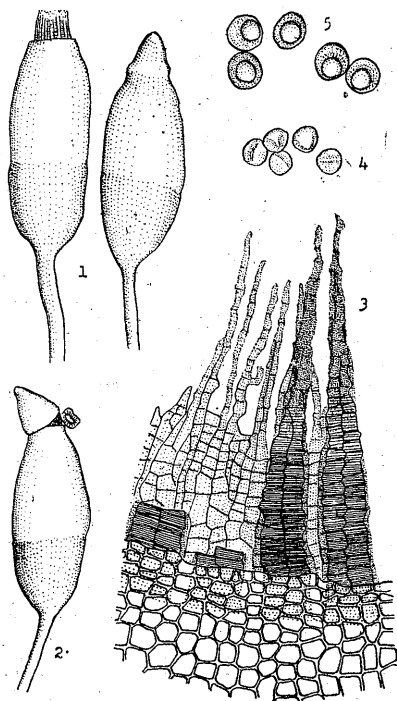


Fig. 1. Intergeneric hybrid sporogone, *Bryum argenteum* var. *lanatum*  $\times$  *Brachymenium exile*. 1-2. capsules  $\times 13$ , 3. peristome  $\times 134$ , 4. spores  $\times 417$ , 5. sterile spores  $\times 360$ .

\* 鳥取大学農学部生物學教室.  
University, Tottori, JAPAN.

Biological Institute, Faculty of Liberal Arts, Tottori

the road-side.

Kyushu. Miyazaki Pref. Aira-gun, Kirishima-mura, near Hot-Springs Hayashida, alt. ca. 800 m. Coll.: H. Ochi, July 17, 1952, Herb. No. 2149 (a part).

Comparing the sporogones of the above mentioned materials with those of *Brachym. exile* (Fig. 2) and of *Bry. argenteum*, the author is able to point out the following discrepancy.

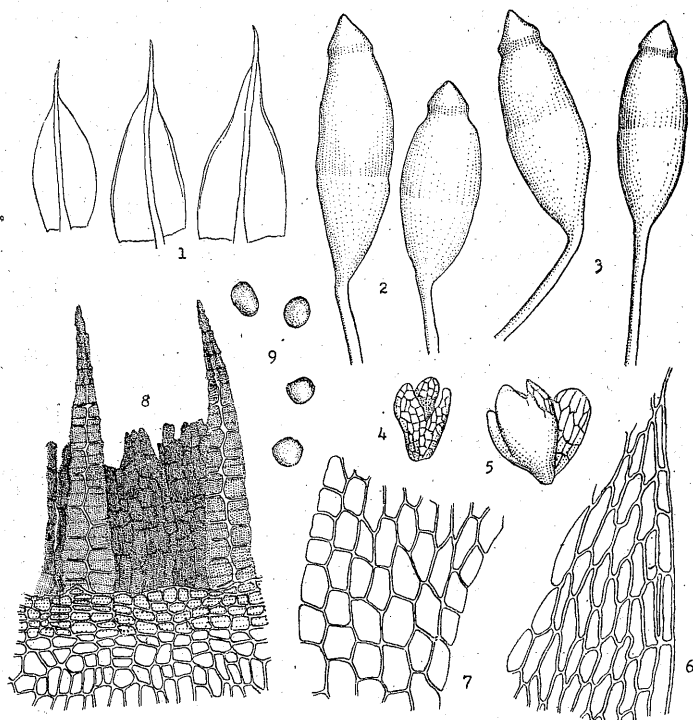


Fig. 2. *Brachymenium exile*

1. leaves  $\times 30$ , 2-3. capsules  $\times 13$ , 4-5. gemmae  $\times 60$ , 6. leaf-cells from the apical margin  $\times 260$ , 7. ditto from the base  $\times 260$ , 8. peristome  $\times 125$ , 9. spores  $\times 420$ .

1. The sporogones generally resemble those of *Brachym. exile* in their external appearance, but are a little longer, thicker and harder than those of the latter, and moreover, the capsules of the former are more dark colored.

2. The peristome has intermediate character between *Brachym. exile* and *Bry. argenteum*:

a. The papillar feature resembles that of *Brachym. exile*, but papillae are not present at the base of the outer peristome.

b. Apical half of the outer peristome is like that of *Brachym. exile*: the margin is irregularly zig-zag-formed, but on the other hand, the basal half is like that of *Bry. argenteum*.

c. Inner peristome has also intermediate character between *Brachym. exile* and *Bry. argenteum*: processi and cilia are unequally developed and imperfect, and densely and finely papillose, but not so dense as those of *Brachym. exile*; cilia are not always appendiculated.

3. Spores resemble those of *B. argenteum* in size and in the other outer features, but their nuclei are larger than those of *B. argenteum*.

Sporogones and spores are well-developed in most cases.

Considering these facts the sporogones seem to be exactly the intergeneric hybrid product happened between the two species; and at least, *Brachymenium exile* seems in a very intimate relation with *Bry. argenteum*. If this hypothesis is to be admitted, the author must anticipate that some alterations are unavoidable in the taxonomical system of the mosses of these genera. On this problem, however, the author will discuss later.

昭和 27 年 7 月 19 日 宮崎県始良郡霧島村林田温泉の下之路傍, コンクリート製排水溝の所でワタゴケとテリギンゴケモドキとを交えたホソウリゴケの標品を採集した。後にその標品を調べてみると, 数個体のワタゴケに異常な造胞体のついているのがあった。その造胞体の特徴はギンゴケとホソウリゴケとの中間的のものである。すなわちその概略を示せば, 1) 造胞体の外貌はホソウリゴケに近いが, 少し大きく, 色は濃く丈夫である。2) 蘚菌はギンゴケとホソウリゴケとの中間の特徴を現わす。3) 胞子はギンゴケのそれに近いが核はやや大きい。時に発育悪くホソウリゴケのそれよりも小さくしわのよつていることもあるが, 多くの場合よく成熟している, 等である。

以上の諸点から考えるとこの造胞体は上記 2 種の自然交雑によつて生じたものと思われる, この 2 種は非常に近縁なものと考えられる。中間的な栄養体は発見できず, 又胞子の発芽についてもわからないので, 更に現地を踏査しなければ未だ確定的なことは言えず, 又更に多くのこの様な事例を必要とするかも知れないが, このことは将来において, 現在迄之等両属に入れていた蘚類の分類体系を再検討する必要が生ずるかも知れないことを予言する一証拠と思われるが, この問題については稿を改めてのべたい。

終りに常に御指導をいただく堀川教授及び野口博士に深謝の意を表し, 又採集に御教示をいただいた新敏夫氏にも謝意を表する。

(昭和 28 年 9 月)